

IN THE CLAIMS:

Please amend the claims as follows:

1-28. (Canceled)

29. (Previously presented) A device for detecting, measuring or monitoring the activities or concentrations of

at least one protein in a test sample, wherein the protein belongs to a plurality of proteins and the plurality of proteins have similar or overlapping properties towards a plurality of substrates, wherein the device comprises means for

adding the plurality of substrates to a plurality of aliquots of the test sample;

measuring reaction rates between the protein and each substrate;

determining the activity or the concentration of the protein using a sensitivity coefficient for each substrate and for each protein, wherein the sensitivity coefficient was determined from a sensitivity coefficient sample by

obtaining a plurality of inhibited dilutions of the sensitivity coefficient sample, wherein the plurality of inhibited dilutions comprise a plurality of concentrations of the protein which are partially to completely inhibited;

exposing each inhibited dilution of the plurality of inhibited dilutions to each substrate;

measuring the reaction rates between each uninhibited protein in each inhibited dilution and each substrate;

calculating the linear relationships between the reaction rates of each uninhibited protein and each concentration of the sensitivity coefficient sample at infinite inhibitor concentration; and

extracting each sensitivity coefficient of each substrate for each protein from the calculated linear relationships.

30. (Previously presented) The device of claim 29, further comprising at least one cartridge comprising a reagent, a buffer, a substrate, a standard, or a combination thereof for measuring the reaction rates.

31. (Withdrawn) A kit for detecting, measuring or monitoring the activities or concentrations of at least one protein in a test sample comprising the device of claim 29.

32. (Withdrawn, Currently amended) The kit of claim 31, wherein the device ~~for~~ measures the reaction rates between acetylcholinesterase and butyrylcholinesterase and the substrates, and calculates the activities or concentrations acetylcholinesterase and butyrylcholinesterase.

33. (Withdrawn) The kit of claim 32, wherein the substrates for acetylcholinesterase and butyrylcholinesterase include acetylthiocholine, butyrylthiocholine, and propionylthiocholine.

34. (Withdrawn) The kit of claim 31, further comprising a chromogenic substrate.

35. (Previously presented) The device of claim 29 in the form of a biosensor capable of detecting an agent which affects the concentration or activity of at least one protein in a test sample, wherein the protein belongs to a plurality of proteins and the plurality of proteins have similar or overlapping properties towards a plurality of substrates, which comprises a sealed chamber containing a known mixture of the plurality of proteins.

36. (Withdrawn) A database of sensitivity coefficients for calculating the activities or the concentrations of

at least one protein in a test sample, wherein the protein belongs to a plurality of proteins and the plurality of proteins have similar or overlapping properties towards a plurality of substrates, made by using the device of claim 29.

37. (Canceled)

38. (Currently amended) The device of claim 29, wherein the device is ~~an i-STAT® system, a Test-Mate OPTIM unit, or a Biomeek 2000 a commercially available detection device adapted to determine the activity or the concentration of the protein using the sensitivity coefficient for each~~

substrate and for each protein.

39. (Previously presented) The device of claim 29, wherein the device is a handheld device.